

REMARKS

In the Office Action mailed March 20, 2006, the U.S. Patent and Trademark Office (hereinafter "the Office") rejected Claims 1-34 under 35 U.S.C. § 103(a) as being unpatentable over Hassell et al., U.S. Patent Publication No. 2001/0050920 (hereinafter "Hassell"), in view of Harrison et al., U.S. Patent No. 6,064,420 (hereinafter "Harrison"). Without admitting to the propriety of the rejections, applicant has amended Claims 1, 8-13, 15-18, 22-25, 28 and 34 to correct minor typographical errors and/or to clarify the features of the claimed invention. Claims 7 and 21 have been canceled. Claims 1-6, 8-20, and 22-34 are thus presented for reconsideration and allowance.

After carefully considering the prior art and the comments provided in the Office Action, applicant believes the pending claims are allowable over the prior art. Applicant requests withdrawal of the rejections and allowance of the claims at an early date.

Interview Summary

Prior to discussing the prior art and the patentability of the claims, the undersigned counsel wishes to thank Examiner Bui for the time and consideration she extended in a telephone interview conducted July 7, 2006. The interview focused on the patentability of the independent claims over the teachings of Hassell and Harrison. The patentability of certain dependent claims (Claims 8 and 9, and parallel dependent claims, for example) was also discussed. Applicant agreed to submit a formal response, presented herewith, upon which a determination of allowability of the claims would be made.

Claims 1-6 And 8-10 Are Patentable Over The Prior Art

For convenience of examination, amended Claim 1 is repeated as follows:

1. A method, comprising:

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sending one or more television signals, including trigger information related to content of the television signals, to a first client terminal via a first channel of a communication network;

aggregating at least some of the trigger information related to the content of the sent television signals; and

sending at least some of the aggregated trigger information separate from the content of the television signals to a second client terminal via a second channel of the communication network,

wherein aggregating the trigger information related to the content of the television signals includes receiving the trigger information from a plurality of collection devices that have the capability to detect and extract trigger information in the sent television signals.

As discussed during the interview, neither Hassell nor Harrison (alone or combined) teaches all of the elements recited in Claim 1 and therefore cannot support a *prima facie* rejection of Claim 1 based on obviousness. Claim 1 recites, in part, "aggregating at least some of the trigger information related to the content of the sent television signals ... [which] includes receiving the trigger information from a plurality of collection devices that have the capability to detect and extract trigger information in the sent television signals." These features are not taught nor suggested by Hassell and/or Harrison. Hassell, at best, discloses a single receiver 104 (Figure 1) or a set top box 128 (Figure 1-B) that receives an enhanced broadcast signal. Similarly, Harrison teaches, at best, a single receiver 36 that receives an input 50. Nowhere does the cited art teach a *plurality of collection devices*, much less aggregating trigger information in *sent television signals* by *receiving the trigger information from a plurality of collection devices*.

Moreover, the cited art does not teach a plurality of collection devices that have the capability to *detect and extract* trigger information in the sent television signals. While the Office may argue that Hassell teaches insertion of aggregated content into a non-enhanced broadcast stream to create an enhanced broadcast stream, Hassell does not teach aggregating trigger information from television signals that are sent to a client terminal, and Harrison does not cure this deficiency.

Absent a teaching of all the elements of Claim 1, the combination of Hassell and Harrison (which combination applicant denies) does not support a *prima facie* obviousness rejection of Claim 1. Claim 1 is allowable over the cited art.

Claims 2-6 and 8-10 are also in patentable condition, both for their dependence on Claim 1 and for the additional subject matter they recite. For instance, Claim 8 further defines the method of Claim 1 "wherein the plurality of collection devices includes *a bank of set top boxes that are not deployed to subscriber residences.*" See, e.g., FIGURE 4 of the present application as well as the corresponding description provided on pages 15-16 of the application. The bank of set top boxes are located in a headend, as shown, and are not deployed to subscriber residences. The method of Claim 8 further comprises "tuning each set top box to a channel corresponding to a television signal," "using the set top boxes to obtain trigger information from the television signal on the respective channels to which the set top boxes are tuned," and "aggregating the trigger information obtained by the set top boxes and sending the aggregated trigger information to the second client terminal." These features of the invention claimed in Claim 8 are not taught or suggested by Hassell or Harrison.

As another example, Claim 9 further defines the method of Claim 1, "wherein the plurality of collection devices includes *a plurality of client terminals deployed in subscriber*

residences." See, e.g., FIGURE 5 of the present application as well as the corresponding description provided on pages 16-17 of the application. In this implementation, the headend relies on receiving the trigger information collected by the client terminals in the subscriber residences in order to aggregate the information for a second terminal. Specifically, the method of Claim 9 further comprises "requesting the deployed client terminals to send trigger information," "for the deployed client terminals, determining whether the trigger information to send has been previously sent," "if the trigger information is determined to have not been previously sent, sending a copy of the trigger information from at least one of the deployed client terminals," and "receiving the copy of the trigger information sent from the at least one of the deployed client terminals and delivering the trigger information to the second client terminal." Again, these features of the claimed invention are not taught or suggested by Hassell or Harrison.

Reconsideration and allowance of Claims 1-6 and 8-10 is requested.

Claims 11-14 And 15-17 Are Likewise Patentable Over The Prior Art

Claim 11 incorporates subject matter previously presented in Claim 12 and is allowable for the same reasons discussed above relative to Claim 1. In particular, Claim 11 recites a machine-readable medium with machine-executable instructions, which includes "instructions to receive the trigger information from a plurality of collection devices that are each tuned to a channel corresponding to a television signal and have the capability to detect and extract trigger information in the television signals." The foregoing features are not taught by Hassell or Harrison. Claims 12-14 further define Claim 11 and present additional elements that are not taught in the prior art.

Claim 15 is directed to an apparatus, comprising "an aggregator ... capable to receive the trigger information from a plurality of collection devices and send at least some of the

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aggregated trigger information separate from the content of the television signals to a second client terminal via a second channel of the communication network." Neither Hassell nor Harrison teach these features. Claim 16 adds "wherein the collection devices include a plurality of client terminals deployed in different subscriber residences", while Claim 17 adds "wherein the plurality of collection devices comprises set top boxes deployed at the broadcast center to receive the television signals and extract the trigger information from the television signals, and wherein the aggregator includes an input to receive the trigger information from the set top boxes." These additional features are not taught by Hassell or Harrison.

Accordingly, applicant submits that Claims 11-14 and 15-17 are patentable over the prior art.

Claims 18-20 And 22-24 Are Patentable Over The Prior Art

Claim 18 recites as follows:

18. An interactive television system, comprising:
 - a broadcast center to send television signals, along with trigger information related to content of the television signals, to a first client terminal via a first channel of a communication network coupled to the broadcast center;
 - an aggregator communicatively coupled to the broadcast center, the aggregator capable to aggregate at least some of the trigger information related to the content of television signals that are sent from the broadcast center to the first client terminal, the aggregator further capable to send at least some of the aggregated trigger information

separate from the content of the television signals to a second client terminal via a second channel of the communication network; and

a unit disposed in the broadcast center to process the television signals that are sent to the first client terminal and to provide the trigger information related to the content of the sent television signals to the aggregator.

In the interview, it was pointed out that neither Hassell nor Harrison (alone or combined) teaches all of the elements recited in Claim 18 and therefore cannot support a *prima facie* obviousness rejection of Claim 18. In part, Claim 18 recites "a unit disposed in the broadcast center to process the television signals that are sent to the first client terminal and to provide the trigger information related to the content of the sent television signals to the aggregator," which is not taught in the prior art. Neither the receiver 104 nor set top box 128 in Hassell are described as being in a broadcast center. Similarly, Harrison does not teach the receiver 36 as being in a broadcast center. See e.g., Col. 6, lines 32-34 of Harrison. Furthermore, the cited art does not teach providing the trigger information related to the content of the sent television signals to the aggregator, as claimed. Claim 18 is thus allowable over the cited art.

Claims 19-20 and 22-24 are also in patentable condition, both for their dependence on Claim 18 and for the additional subject matter they recite. For instance, neither Hassell nor Harrison teach "a plurality of collection devices to provide the trigger information to the aggregator," as claimed in Claim 22.

Claim 23 further defines the system of claim 22, "wherein the plurality of collection devices includes a bank of set top boxes communicatively coupled to the broadcast center and to the aggregator, the set top boxes being tuned to a channel corresponding to a television signal

and capable to obtain trigger information from the television signal on the respective channels to which the set top boxes are tuned, the aggregator capable to receive the trigger information obtained by the set top boxes and to send the aggregated trigger information to the second client terminal," which is not taught by the cited art.

Claim 24 further defines the system of claim 22, "wherein the plurality of collection devices includes a plurality of deployed client terminals coupled to the communication network, the aggregator capable to request the deployed client terminals to send trigger information ... [and] receive the copy of the trigger information sent from the at least one of the deployed client terminals," among other features. These features are not taught by the cited art.

Reconsideration and allowance of Claims 18-20 and 22-24 is requested.

Claims 25-27 and 31-32 Are Patentable Over The Prior Art

None of the cited and applied references teaches "sending one or more television signals, including trigger information related to content of the television signals, to a first client terminal via a first channel of a communication network; [and] aggregating at least some of the trigger information related to the content of the sent television signals, wherein aggregation of the trigger information includes: . . ." as recited in Claims 25 and 31, albeit in different manners. Whereas the methods in Claims 25 and 31 aggregate the trigger information after the one or more television signals are sent, the system of Hassell does not aggregate trigger information from one or more sent television signals (see, e.g., paragraphs [0027]-[0028] of Hassell), and Harrison does not supply the necessary disclosure to overcome this deficiency.

As specified by M.P.E.P. Section 2131.01, "the identical invention must be shown in as complete detail as is contained in the . . . claim," citing favorably *Richardson v. Suzuki Motor Company*, 868 F.2d 1226, 1236; 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Given that neither

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Hassell nor Harrison disclose the identical invention, the Office has failed to state a *prima facie* case of obviousness. Claims 25 and 31, and their dependent claims, should be allowed.

In addition, Claim 25 further recites the "aggregating" element as including "requesting client terminals that have been deployed in different subscriber residences to send trigger information obtained from the television signals" and "receiving the trigger information from at least one of the deployed client terminals." These features are also not taught in the cited art.

Claim 32, for its part, recites elements similar to those presented in Claim 9, and for the same reasons discussed above with respect to Claim 9, Claim 32 is further patentable over the cited art.

Reconsideration and allowance of Claims 25-27 and 31-32 is requested.

Claims 28-30 Are Patentable Over The Prior Art

Claim 28 recites, in part, "a plurality of set top boxes communicatively coupled to the broadcast center and to the aggregator, the set top boxes being tuned to a channel corresponding to a television signal and capable to obtain trigger information from the television signal on the respective channels to which the set top boxes are tuned, the aggregator capable to receive the trigger information obtained by the set top boxes and to send the aggregated trigger information to the second client terminal." Neither Hassell nor Harrison (alone or combined) teaches all of the elements recited in Claim 28 and therefore cannot support a *prima facie* obviousness rejection of Claim 28. For the same reasons discussed above, e.g., with respect to Claim 8, Claim 28 is patentable over Hassell and Harrison.

Claims 29-30 are also in patentable condition, both for their dependence on Claim 28 and for the additional subject matter they recite.

Claims 33-34 Are Patentable Over The Prior Art

Claim 33 recites, in part, "an aggregator communicatively coupled to the broadcast center, the aggregator capable to aggregate at least some of the trigger information related to the content of television signals that are sent from the broadcast center to the first client terminal ... [and] to send at least some of the aggregated trigger information separate from the content of the television signals to a second client terminal ... being a different type of terminal than the first client terminal, the second channel capable to use a communication protocol different than a communication protocol on the first channel for the aggregated trigger information sent to the second client terminal, the second client terminal capable to process the aggregated trigger information separately from trigger information processed by the first client terminal," which is not taught by Hassell nor Harrison.

Furthermore, as with Claim 8, Claim 34 recites "a plurality of set top boxes communicatively coupled to the broadcast center and to the aggregator, the set top boxes being tuned to a channel corresponding to a television signal and capable to obtain trigger information from the television signal on the respective channels to which the set top boxes are tuned, the aggregator capable to receive the trigger information obtained by the set top boxes and to send the aggregated trigger information to the second client terminal," which is not taught by Hassell nor Harrison.

Claims 33 and 34 are allowable over the cited art.

CONCLUSION

Independent Claims 1, 11, 15, 18, 25, 28, 31, and 33 are patentably distinguished over the cited and applied references. Dependent Claims 2-6, 8-10, 12-14, 16-17, 19-20, 22-24, 26-27, 29-30, 32, and 34 are also allowable because they depend from allowable independent claims and because they include additional features that are not taught in the prior art. In view of the above, applicant respectfully requests reconsideration and allowance of Claims 1-6, 8-20, and 22-34.

Respectfully submitted,

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